

GLOMAR, From A1

The Washington Post has reported that the Glomar Explorer retrieved at least two torpedoes with nuclear warheads, giving intelligence experts a rare glimpse of how the Soviets make nuclear weapons.

The New York Times has said the Glomar recovered the forward third of the submarine, failing to retrieve any nuclear warheads or the coveted code machines that would enable U.S. intelligence experts to unscramble almost 10 years worth of secret Soviet messages.

Last week, The Times repeated this version of its story, quoting two brothers, Wayne R. and Billy C. Collier, who were involved in the construction and operation of the Glomar Explorer but were not aboard the ship during the recovery operation 750 miles northwest of the Hawaiian island of Oahu.

Time magazine said three weeks ago that the salvage operation succeeded in recovering the code machines and three nuclear warheads from the surface-to-surface missiles carried by the submarine. Time quoted a crew member named Joe Rodriguez, now a hairdresser in the Sacramento, Calif., area, who acknowledged after the story was published that he was not aboard the Glomar during recovery.

Time said the Glomar recovered most of the sunken sub, a story it appeared to retract this week when it said that only one-third of the submarine may have been lifted from the ocean floor. But Time ended its story this week by quoting Pentagon sources as saying that nuclear warheads and code machines both had been in the one-third of the submarine that was recovered.

Sources have once again told The Washington Post that nuclear warheads were indeed taken by the Glomar Explorer from the recovered part of the Soviet submarine. These sources have said the warheads come from the surface-to-surface missiles, not torpedoes.

This means that the one-third piece of the submarine the Glomar recovered was the middle section, which included the "sail" or conning tower that had been built to twice-conventional size to hold three missiles fitted with atomic warheads.

It also means that the Glomar recovered the submarine's communications gear intact, because the gear was installed inside the conning tower. Its antennas appear in pictures taken by the U.S. Navy and even in photographs released by the Soviets showing antennas sticking out from the center of the conning tower.

Just how Soviet submarines communicated with the homeland is still unclear, but almost certainly they did it the same way U.S. Polaris submarines did it for years. They stayed submerged and floated an electronics buoy to the surface, which carried radio signals back and forth between

the submerged boats and the naval bases on land.

The United States long ago switched to a satellite system, which involves submarines coming up to within 20 feet of the surface and communicating via satellites able to pierce the first 20 feet of ocean water with a powerful radio beam. The Soviets are understood to have moved to such a system within the last six months.

U.S. Got Communication Data Off Sunken Soviet Submarine

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By Thomas O'Toole

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When the Central Intelligence Agency recovered a section of a sunken Soviet submarine in 1974, it retrieved a detailed description of how all Soviet submarines communicate with their homeland.

So much of the communications system of the Soviet submarine was recovered from the floor of the Pacific Ocean by the CIA that U.S. Navy experts were able to piece together how the system worked and to monitor routinely for the last year communications between Soviet submarines at sea in the Atlantic and Pacific oceans and their home bases in the Soviet Union.

Sources would not say whether the Navy is still monitoring ship-to-shore communications to and from Soviet submarines, but they pointed out that the Soviets have switched to a new system using satellites to communicate from submarines to the Soviet

Union. This might mean that the United States is no longer able to understand the chatter between submarines at sea and their home ports.

"It was a real bonanza," one source close to the CIA said. "The whole salvage operation was worth every penny we spent on it."

The salvage operation was conducted in July and August of 1974 by a \$250 million ship called the Glomar Explorer, which had been built for the CIA by a corporation owned by the late Howard Hughes. The vessel raised from a depth of 16,000 feet about one-third of a Soviet submarine that suffered an underwater explosion and sank with 86 crew members aboard almost nine years ago.

There have been conflicting press reports about what parts of the Soviet submarine were recovered and their value to intelligence experts since the story first surfaced 21 months ago.

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